AWARENESS OF RISK MANAGEMENT AMONG CONTRACTORS IN THE GOVERNMENT CONSTRUCTION PROJECT

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I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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I dedicate this research to my parents, to my lectures and family for unending supports

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ABSTRAK

Malaysia adalah salah satu ekonomi paling pesat berkembang di dunia dan secara aktif bekerja untuk mencapai status berpendapatan tinggi. Industri pembinaan adalah salah satu industri terbesar di dunia. Sumbangan industri ini ke arah Keluaran Dalam Negara Kasar (KDNK) global berkisar pada satu per sepuluh dari jumlah keseluruhan. Oleh itu, risiko memainkan peranan penting dalam kejayaan projek pembinaan. Masalah kelewatan dalam industri pembinaan adalah fenomena global dan industri pembinaan di Malaysia tidak terkecuali. Selain itu, dokumen tender adalah salah satu peranan penting untuk menguruskan risiko dalam kemajuan projek pembinaan. Oleh itu, penyelidikan ini memberi tumpuan kepada kesedaran di kalangan kontraktor dari sudut dokumen tender. Matlamat kajian ini adalah untuk mengkaji pengurusan risiko dalam projek pembinaan, untuk menilai kesedaran pengurusan risiko di kalangan kontraktor dalam projek pembinaan kerajaan dan untuk menganalisis kesedaran pengurusan risiko di kalangan kontraktor dalam projek pembinaan kerajaan. Responden dari pelbagai syarikat kontraktor dan organisasi yang terlibat dalam projek kerajaan telah didekati untuk mendapatkan maklum balas mereka terhadap kesedaran tentang pengurusan risiko dalam projek pembinaan dengan mengedarkan soal selidik. Daripada tinjauan itu, hasilnya menunjukkan kesedaran di kalangan kontraktor yang sederhana dan kemajuan kerja merupakan isu yang paling penting dalam projek pembinaan. Di samping itu, pelbagai syarikat dan organisasi kontraktor perlu meningkatkan tahap kesedaran dalam pengurusan risiko dan menekankan isu ini untuk melonjakkan Malaysia sebagai negara maju. Cadangan yang disenarai memberikan peningkatan dalam kesedaran tentang pengurusan risiko dalam projek pembinaan kerajaan.

ABSTRACT

Construction industry is one of the biggest industry in the whole world. The contribution of this industry towards the global Gross Domestic Product (GDP) revolves around one-tenth of the total amount. Therefore, risk plays an important role in the success of construction project. The problem of delays in the construction industry is a global phenomenon and Malaysia is no exception. Other than that, the tender document is one of the important role to manage risk in construction project progress. This research, therefore, focused on the awareness among contractors in term of tender document. The goals of these research were to study the risk management in construction project, to evaluate awareness of risk management among contractors in the government construction project and to analyze awareness of risk management among contractors in the government construction project. The respondents from various contractor companies and organizations which involved in government project have been approached to get their respond toward the awareness of risk management in construction project by questionnaire distribution. From the survey, the result showed that the awareness among contractors were moderately aware and working progress was the most crucial issue in construction project. Therefore, various contractor companies and organizations need to improve the awareness level in risk management and emphasize this issue to elevate Malaysia into a developed country. The recommendation listed provide further enhancement in awareness of risk management in government construction project.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Introduction

Construction industry is one of the biggest industries in the whole world. The contribution of this industry towards the global Gross Domestic Product (GDP) revolves around one-tenth of the total amount. Construction industry is also a potential employment generator and provides work to almost seven percent of the total employed person in the whole world. The extent of this industry has become so vast that the energy, in the form of electricity or fuel, consumed by it hovers around two-fifth of the total energy consumed all over the globe. The resources that are utilized in World Construction Industry is also staggeringly high and itself consumes fifty percent of the total world resources. Construction industry is the base of the world economy which is achieved through the construction of real estate properties (both residential and commercial), bridges, tunnels, roads, railway tracks and compartments, airports, etc.

Malaysia is actively working towards achieving a high-income status. This involves intensive transformation of the economic structure. The government has outlined an economic road map to transform the country in order to be recognised as a developed nation. Malaysia began develop its construction industry since independence. According to (Lewis, 1955), more than half of capital formation consists of work in construction. Hence, the expansion of capital is a function the rate at which the construction industry can be expanded. This can be seen in the initial economic plan (1956-1960) where it was basically a development expenditure plan. The primary concern was developing the infrastructure during independence because of its

inadequacy. In order for the nation's economy to prosper, the construction industry has to be developed first for the economy to take a one step further.

The importance of construction sector can be seen clearly and it has been developed since independence. The construction sector was the main contributor to the GDP at 9.9%, followed by manufacturing (7.3%), agriculture (7.1%), private consumption (6.5%), and petroleum and mining (2.1%). The GDP from construction in Malaysia increased to 14093 MYR Million in the first quarter of 2018 from 13352 MYR Million in the fourth quarter of 2017. GDP from construction in Malaysia averaged 10269.76 MYR Million from 2010 until 2018, reaching an all-time high of 14093 MYR Million in the first quarter of 2018 and a record low of 6464 MYR Million in the first quarter of 2010.

The concept of risk management is widely used in all industries, such as manufacturing, mining, agriculture, services and construction sector. Each sector have their own risk management standard, but all of the standards are remain the same regardless of the sector. According to the Project Management Institute (PMI) (2004), project risk management is one of the nine most critical parts of project commissioning. This show a significant connection between a project success and managing risk. Meanwhile risk management is considered as the most difficult area within construction management (Winch, 2002; Potts 2008) its application is promoted in all projects in order to avoid negative consequences (Potts, 2008).

The Association for Project Management (2000) stated that risk is unavoidable in construction projects and thus, risk management is a hastily developing management tool in construction project due to the realization of its importance as an integral part of project management. Risk management is one of the most vital procedures and capability way in coping with project risks and uncertainties. In order to rescue the poor reputation of construction industry in project performance, the right implementation of risk management is essential. With the implementation of risk management, the common problem in construction projects such as delay in project delivery, over budget, unsatisfactory product quality, unsafe working environment and etc. needs can be

eliminated. Therefore, it could be argued that risk management is important especially during the decision making process with regard to risks.

The success of a construction project is determined by completion time, budget, in accordance with the specification and stakeholders' satisfaction. Functionality, profitability to contractors, absence of claims and court proceeding and "fitness for purpose" for occupiers have also been used as measures of project success (Majid, 2006). However, (Chan and Chan, 2004) define project success thing as different to different people. Each client, consultant, contractor, designer as well as subcontractor has their own interpretation in determining the success of a project. Chan and Chan (2004) further conclude that the definition of project success is depending on project type, size and sophistication, project participants and experience of owners, etc. However, in construction projects, reseachers agree that interpretation on the project success is merely based on the so called golden triangle namely time, cost and quality (Abdullah et al., 2010; Endut et al., 2005; Le-hoai et al., 2008; Majid, 2006; Ogunlana and Promkuntong, 1996; Othman et al., 2006; Sambasivan and Soon, 2007). The problem in the construction highlighted in this paper is according to the above mentioned success factors.

According to (Ogunlana and Promkuntong, 1996), there is three main problems namely problems of shortages or inadequacies in industry infrastructure (mainly supply of resources), problems caused by clients and consultants and problems caused by contractor incompetence in the construction of high rise building in Bangkok, Thailand. A Study in Vietnam construction industry found that poor site management and supervision, poor project management assistance, financial difficulties of owner, financial difficulties of contractor; design changes are five most frequent, severe and important causes of delays (Le-hoai et al., 2008). Ten most problematic factors are found by (Sambasivan and Soon, 2007) while assessing the delay causes and the effects in the Malaysian construction industry. Those problems are contractor's improper planning, contractor's poor site management, inadequate contractor experience, inadequate client's finance and payments for completed work, problems with subcontractors, shortage in material, labor supply, equipment availability and failure, lack of communication between parties, and mistakes during the construction stage. Furthermore, Abdullah et

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